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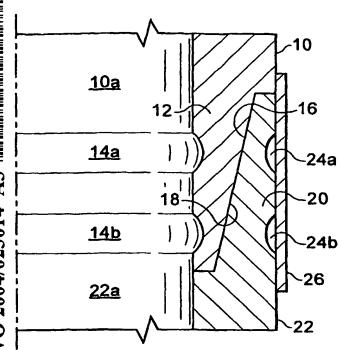
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(54) Title: THREADED CONNECTION FOR EXPANDABLE TUBULARS



(57) Abstract: A threaded connection for expandable tubulars. There is a first tubular (10) with external threads (16) and a second tubular (22) with matching internal threads. Each of these tubular has stress concentration grooves (14a, 14b, 24a, 24b). There is a sleeve (26) that goes over the connection between the threaded portions of the tubulars. After connection these tubulars can be expanded downhole in a wellbore.

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### INTERNATIONAL SEARCH REPORT

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.	
x	US 5,924,745 A (Campbell) 20 July 1999 (20.07:1	999), figures 3 and 4 column 3 lines	1, 3-5, 7-9, 11, 12,	
	9 - column 4, line 27.		15, 17-21	
Y	SU 1,756,531 A (KRYZHANOVSKII et al) 28 Ma abstract.	rch 1990 (28.03.1990), Figure 1,	1, 3-5, 7-9, 11, 12, 15, 17-21	
Y	WO 99/23354 (METCALFE) 14 May 1999 (14.05	.1999), figure 5, page 11 lines 23-28.	1, 3-5, 7-9, 11, 12,	
A, E	US 6,622,797 B2 (SIVLEY IV) 23 September 2003 (23.09.2003), whole document.		15, 17-21 1-12, 15-21	
A, E	US 6,607,220 B2 (SIVLEY, IV) 19 August 2003 (19.08.2003), whole document.		1-12, 15-21	
A, P	US 6,564,875 B1 (BULLOCK) 20 May 2003 (20.05.2003), whole document.		1-12, 15-21	
A	US 2002/0108756 A1 (HARRALL et al) 15 August 2002 (15.06.2002), whole document.		1-12, 15-21	
A	US 6,322,109 BI (CAMPBELL et al) 27 November 2001 (27.11.2001), whole document.		1-12, 15-21	
A	US 6,085,838 A (VERCAEMER et al) 11 July 2000 (11.07.2000), whole document.		1-12, 15-21	
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